AMERICAN FARMER.

RURAL ECONOMY, INTERNAL IMPROVEMENTS, PRICES CURRENT.

" O fortunatos nimium sua si bona norint
" Agricolas." . . . VIRG.

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AGRICULTURE.

The Agricultural Society of Maryland,

Met agreeably to the provisions of their constitution, at the Assembly Room in Annapolis, on the third Wednesday in December last, but in consequence of the inclemency of the weather, adjourned to meet again on the 11th of January, 1821, on which day the society met and proceeded to business. The same officers as on last year were appointed.

On motion of Mr, Maxey, the following resolutions were unanimously adopted.

Resolved, That in the opinion of this society, well edited periodical papers, devoted to agricultural subjects, constitute one of the best means of advancing the interests of agriculture and thereby attaining the objects of this society.

Resolved, That in the opinion of this society, the weekly paper, published at Baltimore, entitled the " American Farmer," is judiciously and ably conducted, has conferred an important benefit upon the country, by diffusing valuable information and by exciting and fostering a spirit of liberal inquiry into the true principles and practice of agriculture, and eminently merits support and encouragement from the friends of agriculture throughout the Union.

Resolved, That editors of newspapers who are friendly to the promotion of agriculture be requested to publish the foregoing resolves.

A number of ploughs of different constructions and other implements of husbandry, and also a Machine for shelling corn were exhibited by Mr. Sinclair of Baltimore, which were highly improved of.

The society then adjourned to meet at 4 o'clock in the evening to hear an address from the pen of Joseph E. Muse, Esq. at which time a number of the gentlemen of the legislature, strangers and citizens attending, the address was read by Mr. John N. Watkins. The society then, unanimously Resolved, that the president be requested to communicate to Mr. Muse, their thanks for his learned and interesting address, and that the Editors of the Maryland Gazette, the Maryland Republican and the American Farmer be requested to publish it.

THE ADDRESS.

Gentlemen of the

Agricultural Society of Maryland,

In performing the office, which you have done me the honour to assign me for the present Anniversary of your institution, my feelings lead me in the first place, to tender you congratulation, on the flattering success with which your laudable, ardent, and unremitted exertions have been accompanied ; the incitement to research in principle and in fact, which, both in your individual and corporate capacities, you have, by example and precept so highly promoted ; and the wealth and happiness which must result to society at large, from a steady perseverance in your meritorious and beneficent labour.

Agriculture, the great pre-eminent cause, the fundamental basis of human enjoyment, viewed with a philosophic eye, is calculated to rouse in the mind of man, gratitude to the Deity, for so kind a benefaction ; good will and fellowship for the mutual and universal participation of the boon ; and to inspire him with ardour and energy for its most perfect attainment.

The history of agriculture, attests by its antiquity, its usefulness to society ; to trace its origin and minute progression would occupy too much of my present narrow limits. The ancient Egyptians had made considerable advances in the field of rural knowledge, and we are informed by Virgil in his Georgics, that the art of agriculture, had been considerably systematized by the Romans. A lamentable period of darkness and barbarism, obscured for many centuries this, as well as the whole range of useful arts and sciences, which ages had cultivated and improved for the comfort of man. Again, at the first dawn of civilization and of learning, when the human mind had conceived the great work of emancipation from the fetters of ignorance and superstition, and their concomitant evils of bloody persecutions, animosities and despotism, among the first fruits of the meliorated condition of man, was exhibited the practice of agriculture, whose benign influence has marked its progress through the devious paths of the forest, and diffused its lustre, when admitted at the threshold of the savage hut. Shall we withhold adoration from this luminary of benighted man, from this *almamater* of our well being, and our happiness ? Shall we need to be incited to make oblations at the shrine of our tutelary divinity ? The strongest motive for human actions must impel us to her holy altar.—The ancients have recorded in their classic archives, their conscious dependance upon this exalted goddess. Ovid has paid her a just and handsome tribute in a few neat and comprehensive lines :

Prima dedit
Fruges, alimentaque mitia terris,
Prima dedit leges. *Certeris sunt omnia munus.*

To pursue this subject farther, to urge its importance before an enlightened community, and more especially, in the presence of a society, whose members have individually attested their fidelity, and evinced their consciousness of its paramount consequence in human affairs : and by their ardent, zealous, and efficient exertions, have contributed to exalt and reflect honour upon, a profession, not long since depressed to subordinate rank of menial occupation, would be an insult to the understanding, and a useless and preposterous waste of time and words.

On the relative values of different sorts of labour, political economists have entertained various opinions ; the mechanic, the merchant and the farmer have their able advocates and apologists, ascribing as fancy or interest might dictate, the wealth of nations to their respective favourite. The acute and discriminating mind of M. Garnier, has placed the claims of agricultural labour, in a point of view, peculiarly plain and forcible in the following judicious remarks : " The labour of artisans and manufacturers does not alter the quantum of wealth existing in the community ; the labour of husbandmen on the contrary, adds to the totality of existing values. As the labour of artisans and manufacturers does not open any new source of wealth, it can prove beneficial only by means of advantageous exchanges, and has a mere relative value ; agriculture on the contrary, opens a new source of commodities, which is lasting and permanent, and which as it furnishes a real supply to consumption, necessarily increases at once population and the national power."

Without entering into a detail of the discussions, definitions, and theories of economists, on the profit of labour, or the cause of wealth ; wherein it may consist, or what may be its basis : we are conducted, without the maze of complex reasoning, or subtle speculation, irresistably to a conviction of the high and essential importance of agriculture to the nation and to the individual, in regard to wealth, comfort and prosperity.

Whether as taught by some learned authorities, wealth consist of all the material commodities which man may use, to supply his wants—or whether, as by the doctrine of more modern economists, it consist of a surplus of produce, above consumption, or of income above expenditure—the conclusion appears inevitable, that agriculture must be at least *one* operative and efficient cause ; from this cause, it would seem, must be derived the subsistence of the merchant, and the manufacturer ; as well as a greater part of the income of the nation, as an accomplished statesman and farmer, (Sir John Sinclair.) has sufficiently proved, was the case in England, notwithstanding her boasted manufactures, during the late long and expensive contests of that nation, as by reference to his code of agriculture, will satisfactorily appear.

When we advert, then, to the peculiar features and physical incidents of our country, its vast extent and variety of soil and of climate, propitious to the whole range of the vegetable kingdom, what may we not fairly anticipate, in the increase of private and public wealth, from the improvement and extension of agricultural knowledge and practice ? How much may the ratio of finance, derived to the nation from this source, and safely to be relied on, exceed that of Great Britain from the same, which itself seems incredible, but it is undoubtedly established ? To what point of wealth and power may not our country attain, should agricultural exertion be extended to the limits of which it is susceptible ? Let the state governments lend a fostering hand ; establish professorships for the diffusion of agricultural science, and boards of agriculture for the collection of facts, and munificently endow them ; the result is incalculable.

With this brief view of the inducements to agricultural exertion, I will venture to call your attention for a few moments, to the theory and practice of agriculture, which are inseparably and essentially conjoined for the improvement of this magnificent art : and truly wonderful it is, that esteemed and adored from the earliest ages of primitive man, its annals afford us no reason to believe, that an attempt had ever been made to collect from so long and extensive a practice, a set of fixed principles, to govern, instruct, and direct the mind by the most sure and easy process, to the summit of improvement, until within a few years, men of learning and talents in Europe and America, have bestowed upon it that attention, which the subject merits ; and have, in the acknowledged opinion of the world, elevated it from the character of a rude and grovelling art, to the rank of science, and of a learned profession.

Some few are yet to be found, who treat with scorn the aspiring claims of agriculture, and boast of successful results, without order, method, or principle ; allow to such their infatuated notions, but suffer them not to contaminate your own ; such doctrine is the legitimate issue of folly and ignorance.

The science of agriculture affords an intellectual banquet, at which the rational mind may be regaled with ecstacy and delight ; plans projected upon principles established : causes known, effects foreseen ; it exults in its superiour existence, let those who are content with the fragments of the feast, most fully enjoy them ; science yields its fruits and the feast its fragments, but the mendicant should not decry the source of his sustenance.

I mean not to advance that the science of agriculture is in a state of perfection, or at once tangible, and ready for the acceptance of any man who may choose to, possess it ; it is yet in point of time and progress, in its infancy, and if its growth be not repressed by deadly enemies, promises, at a reasonable period, to obtain the vigour of maturity ; *and on this crisis, hangs the destinies of agriculture.* Crops may still be grown ; the farmer may survive : but without

science, without a set of fixed elementary principles, from which to deduce a theory and system of regular management, causes being unknown, anticipated effects will be precarious, and the farmer will delve in the dark, to endless eternity, as he has done from primeval time.

I mean not by theory, wild and subtle speculation, designed to exhibit to the admiring world, the fancy and talent of its author rather than the improvement of rural practice; I mean a theory, founded upon such elementary principles as shall have evolved out of time and experience, and which, by a steady perseverance in their collection, might rapidly accumulate, and bring us to a knowledge of agriculture, at present incredible.

A knowledge of chemistry is esentially useful to the scientific agriculturist, as well as to the operative farmer, and as sir Humphrey Davy has well expressed it, has for its objects, "all those changes in the arrangement of matter, connected with the growth and nourishment of plants, the comparative values of their produce as food, the constitution of soils, the manner in which lands are enriched by manures, or rendered fertile by the different processes of cultivation. The advantages of such knowledge need no demonstration.

The narrow limits of an anniversary address cannot admit of very particular discussions, and I must beg permission to direct your attention to a few subjects only, which I have held most worthy of consideration.

The first is tillage, which of all the operations of the farmer, is the most extensive, the most important, and the most defectively executed. Without good tillage, the best manures are inoperative, the best soils are comparatively sterile.

Duhamel du Monceau, who has handed down the opinions of the celebrated Tull, makes the following quotations. "If you take a certain quantity of even the most barren earth, reduce it to a fine powder, and expose it for a year, to the vicissitudes of the seasons, it will acquire such a genuine pregnancy as to be able to receive an exotic plant from the farthest Indies, and to cause all vegetables to prosper in the most exalted degree, which is to be ascribed, he continues to the great division of the particles of the earth. By this toil, (pulverising the earth) he adds, 'it is found that a soil may be so strangely altered from its former nature, as to render the harsh and most uncivil clays obsequious to the husbandman, and to bring forth roots and plants, which otherwise require the lightest and hollowest moulds." This quotation I have made at length, as the result of long experience, and as a proof furnished from one of the most learned and successful agriculturs in Europe, about the middle of the last century, that *fine tillage* is perhaps the most important branch of agricultural operations, and that at least, it may be said, that more depends on it than is generally admitted. The more the particles of the earth are divided, the more the earth is enabled to furnish the food of plants, by being rendered more pervious to the tender radical fibres, and consequently becoming more capable of production.

With a view to fine tillage, I have long since adopted the following practice with great success: I should first state, that the lands on which I have practised, consist generally of a brown loam, with a clayey subsoil. A deep winter fallow, say eight inches, is the first process; in the spring when the earth is sufficiently dry, all the manure to be commanded, is spread, and immediately ploughed in, with a light furrow; the harrow and roller, succeed as soon after as the drying of the earth will admit of them; a single light furrow marks the ground for the planting of the corn, which requires thereafter but little work comparatively with the usual method. By this cultivation, my corn sustained the unusual drought of 1819, without much or any injury; the blades when stripped, were green and succulent, whereas my neighbours will bear evidence of the fact, that theirs were scorched and worthless, and the grain necessarily injured; the effect I ascribed to the deep and perfect pulverizing of the earth, whereby the delicate fibres were enabled to penetrate into a moist stratum, beyond the reach of the scorching rays of the sun.

With the same view in the management of my wheat, I have been in the practice of gathering my corn, removing the stalks, then ploughing the field to the depth it had been the previous winter turned down (eight inches) harrowing in the wheat, and passing over it the roller, if the earth be dry, if not, the roller is deferred until it become so; for this practice I can only say that it has been peculiarly successful; and I refer it to the same cause, the unusual friability of the earth, occasioned by deep and fine tillage.

Yet, though *fine* tillage is universally correct, *deep* tillage may in some soils be injurious; every substance in nature, varies in its capacity to contain heat, and upon the combination of any two, a new capacity is created different from that of either of the constituents; if the capacity be increased by the union, cold is produced, and if it be diminished, heat is disengaged in a sensible state; hence may be understood, (I am inclined to believe,) a forcible reason why deep ploughing may be injurious to some soils, and beneficial to others: soils, whose capacity for heat is too small, or which are great conductors of heat, readily imbibe and as readily part with it; those whose capacities are greater, more slowly imbibe and more slowly disengage it; the effect of too small a capacity in a soil, to contain heat, is, that in summer, plants are scorched by the too rapid disengagement of it; and by the arrival of winter, there is but little, if any, remaining to counteract the excessive cold; when it happens that this capacity for heat is increased by the new combination, the accumulation and retention of the rays of the summer's sun will furnish through winter, a source and supply of general warmth to the tender plant, and prove beneficial; and *e converso*, when a new combination diminishes the capacity to contain heat, the operation will be pernicious; hence the necessity of small experiments, which are easily made, previous to an extensive adoption of either practice, to ascertain the nature of the combinations with the sub-soils of different depths and qualities; because, though stones, and silicious earths are conductors, and argils the reverse, yet from the infinitely diversified constitutions of soils, it cannot be distinctly known without experiment, what may be the result of the respective combinations, yet for this doctrine I have no authority but the application of known principles, to the case in question, and I have presumed to submit to the view of the board my practice, because by means of it, I have improved a fifty acre field, so as to obtain the last season, twenty bushels of wheat to the acre, when four only was the product six years past.

The question of the state in which manures shall be applied with the most profit, (*rotted* or *unrotted*,) I believe is nearly put to rest; Dr. Darwin, and Dr. Davy, by the aid of science, and the author of Arator, by science and practice, with many other able agricultors, have silenced the advocates of the former irrational doctrine. "Vegetable and animal substances are consumed in vegetation, and they can only nourish the plant by affording solid matters, capable of being dissolved by water, or gaseous substances capable of being absorbed by the leaves of vegetables; but such parts of them as are rendered gaseous, or that pass into the atmosphere, must produce a comparatively small effect, for gases soon become diffused through the mass of surrounding air." Now allow them to rot before their application, and the matters dissolved by water must be chiefly wasted, before use, because no plan, conceivable, can be adopted, to preserve a majority of the water either from absorption, in the vessel allotted to contain it, or from evaporation; and the other source of nutriment, the gases will escape into the atmosphere and be wasted by the winds. But apply those substances in the incipient state of putrifaction, and sufficiently *far* to ensure the process, the fixed products yielded in presence of the roots, will be absorbed with the least possible waste; and the evapourable gasses, though not so beneficial, because from their lightness and buoyancy, they are soon lost in the clouds, will be considerably more preserved by the presence of the leaf, which is capable of holding what may come within the sphere of its vegetative influence.

The most eligible rotation of crops; or which is best calculated to yield profit and improvement; is a question dependent on so endless a variety of casualties and incidents, that it may be pronounced a point, which in the nature of things cannot be immutably settled, but must vary with the soil and other circumstances; yet one obvious rule should govern the farmer in his choice, viz. to alternate leguminous and culmiferous crops as much as practicable, their difference of growth would lead us to believe, that they have a difference of food; but their mechanical effects alone, upon the earth, the one binding, the other loosening its texture, is sufficient to justify the practice of alternation; and the modern agriculture is considerably predicated upon the idea of different *genera* feeding upon different *pabula*, or at least, upon different proportions of the same elements. How can this idea be rejected, when we see one genus flourish on the bottom of the river, another on the summit of the mountain; transpose them and they both inevitably perish. The practice of irrigation, which has been extolled in Europe for many centuries, is highly worthy of attention; in this country it has been but little noticed, but might probably, under the auspices and encouragement of this society be introduced, and tend greatly to the improvement of agriculture; when water can be drawn with convenience from muddy rivers, swamps of rich black loam, or calcareous beds, it cannot be doubted that the solution of animal, vegetable, and calcareous matters in those waters, must impart to the lands upon which they are drawn and lodged for some time, a rich deposit of vigour and fertility.

Another benefit I have myself witnessed in the irrigation of a timothy meadow, during the last winter; that of defending the roots of the young grass from the frost; in the winter previous, my timothy which had been seeded in September, was nearly destroyed by frost in this meadow then perfectly drained; it was again well prepared and re-seeded at the same season of the succeeding year; in both instances it was equally flourishing at the accession of the frost; by a small bank, I dammed up the water, which covered all except about one half acre, which was rather higher, but as rich as the rest; in the spring the part irrigated, and under a sheet of *ice* nearly the whole winter, was fine, and yielded a luxuriant crop; the half acre not covered was nearly destroyed by frost. So marked a difference, I confess, I did not anticipate—indeed from the young and tender state of the grass, when covered with water and ice, and the length of time it remained, (the frost preventing its removal,) I feared a fatal result, notwithstanding I had, among others, the excellent authorities of Davy and Darwin, to quiet my apprehensions. The latter in his Phitologia remarks, "water is of greater specific gravity at 42° of Fahrenheit, than at 32° the freezing point, and hence in a meadow, irrigated in winter, the water immediately in contact with the grass is rarely below 40°, a degree of temperature not at all prejudicial to the living organs of plants.

The subject of manures is too copious for discussion in a short address, but in the most desultory manner, yet there is one source so excellent, and so abundant, in the vicinity of most of the farmers of this state, that I cannot pass it by without notice, viz. the rich black loam found in swamps, morasses and bottoms, consisting of carbonaceous matter, sand, and clay; the upper stratum of this earth, more especially last formed from the decomposition of vegetable and animal bodies, readily absorbs oxigen, and forms carbonic acid, one of the most powerful agents in vegetable nutriment. The most profitable method of managing this earth, will be to make a compost heap of it, with the fermenting offal of the farm-yard, because of its extraordinary capacity to absorb putrid effluvia, whereby the fertilizing powers, not only of itself but of its adjunct, are preserved and improved; and should sulphuric acid, which is poison to vegetation, exist, which is frequently the case in morasses, this combination of saline offal, becomes quite *essential* to neutralize the acid, and render it innoxious.

A considerable source of manure may be found in wood shavings, and branches of trees; but in either shape it is difficult of fermentation, and requires the auxiliary power of dung, or green vegetable matter in a state of fermentation, combined with it, to promote the process, or if caustic lime, which latter will much sooner effect a decomposition of the woody fibre, by alternate layers of each, in a pit; for which *application* of a known principle, a Mr. Brown of England was honoured with a medal, as an acknowledgment of the great service rendered to agriculture.

The effects of caustic lime in accelerating the decomposition of moist, fibrous vegetable matter, may be highly useful in grounds lately brought into cultivation, and full of hard roots; but it must be held in view, that though lime be useful, as a solvent of green wood, yet it is detrimental in a dung heap, tending to render the extractive matter insoluble; with oily substances too, it forms an insoluble compound; yet in composts made chiefly of fish or other animal matter, it becomes essential to health, that the heap be covered with lime to correct the excessive and noxious putrescency.

With regard to mild lime, or lime combined with carbonic acid, which it has a strong affinity for, and readily extracts from the atmosphere, the best and most simple indication of its utility, is the non-effervescence of the soil with acids. All soils which do not effervesce with acids are improved by lime; and it is said, sands, more than clay; but of this I doubt, as modern experiments have proved that lime loosens the texture of clay, as much as it binds that of sand, and in reference to texture alone, was the preference given to sand. Indeed, I should prefer its application to clay soils, which very often abound with sulphuric acid, and are rendered by it obstinately barren. This acid would be neutralized, and its bad effects not only counteracted by lime, but a sulphate of lime, or gypsum, would be the product; and thus a poison would become converted into a wholesome food.

Gypsum has been for many years, so extensively used, that to dwell on it would be superfluous; yet were an inquiry made into its peculiar mode of operation, it might be highly beneficial, and the farmer might be less frequently disappointed in his expectations. A more intimate knowledge of it, might probably afford instruction as to the quantity and quality, the soil and season most suitable, and many circumstances promotive of its operation, which at present we are unacquainted with. With this view I presented to this society a memoir on the *modus operandi* of gypsum, ascribing its vegetative efficacy to its phosphorescence, and I have since made some experiments, which favour my hypothesis, but are not conclusive; the ensuing season if more successful, I will render a faithful report of them.

Entomology is a branch of science, closely connected with the interest of the agriculturist, and has been almost wholly neglected in this country, where above all others it is most needed. It is a well known fact that America abounds more with the insect class of zoology, than any other quarter of the globe; and when contemplated in respect to their admirable minute, and complex mechanism, performing a series of physiological operations with accuracy and regularity, and as essential to their miniature existence, as the huge members of the elephant and mammoth, and thus evincing the infinite power and wisdom of their divine author, or whether, in respect to the vast and various influence of their innumerable genera on the welfare of mankind, some annoying, and some affording subsistence, the philosophic mind will hold in contempt the charge of *frivolity* with which this branch of science has been stigmatised and repressed and will feel honoured by researches which have commanded the studious and diligent attention of the most splendid talents on record.

I fear, Gentlemen, I have already trespassed on your patience, and will conclude by quoting in defence of my protracted theme, the sentiments of a favourite classic, on the importance of agriculture.

"Hinc *partriam, parnosque nepotes sustinet*: hinc armenta boum meritosque juvencos."

FOR THE AMERICAN FARMER.

THE PEAR TREE.

Elmwood, January 1st, 1821.

The great disappointment that has attended the cultivation of the finer kinds of the pear has been matter of much regret, with all the lovers of this delicious fruit. And some who were most forward to obtain them and most particular in nursing them, have utterly despaired from a consciousness of their great attention to them, and knowledge of general failure. But let us remember, that a similar despair prevailed respecting grapes, which is now done away by actual cultivation.

The object of this paper is not only to inquire theoretically into the cause of the most common disease that assails them; but to produce actual facts, which must convince the mind, of the most sceptical, of the practicability of retaining these fine fruits, and that by means level to the capacity of every one.

The principal disease that affects them, and the one I particularly allude to, consists in a withering of the interior bark, especially of the limbs, appearing in spring in spots and bars, and more extended affections of the same kind, spreading to the destruction of the individual limb, though the superior part of the limbs are often unaffected by the disease, and are only destroyed by being cut off from the juices of the main stock. As I know of no animal disease exactly resembling it in cause and effect more than *Kibes*, which consists in cold overtaking a high circulation, and throwing off the skin to perish, I shall call it by that name, to distinguish it from the very improper appellation, blast, which is applied to trees killed simply by severity of cold or heat.

In all the various suggestions as to the cause of this disease, I never heard of one that came near the fact, which is more to be wondered at as the real cause has been so strongly indexed by notorious facts. Such for instance, as hard winters, with long cold springs, giving us good pears and leaving us sound trees, whilst a warm winter and especially a warm February followed by a cold March, (a thing almost inevitable,) destroys our trees. We have long been acquainted with this much of vegetable physiology that the bark (as the juices fail and fall comes on) forms on its interior surface longitudinal fibres the same as sapwood, and by this means adheres to the main sapwood, becoming one and inseparable—and that when a certain temperature, say that of April, becomes steady, that those very same fibres having lost their colour and become maternal, throw out juices and form fibres differently disposed and coloured, or bark. Just as we see on denudating a chesnut-tree when the sap is running, a new bark is formed by light and heat acting on those juices, and giving them a form and colour different from what would have ensued if excluded more from light and heat.*

It would therefore, seem to be the order of nature, that a tree could not otherwise exist in severe cold weather, but by this union of bark to the sapwood. This partial retrocession of juices and unity of the parts—a separation at such time, would be as certain to produce injury and death of the bark, as evolving its fruit buds would annihilate the fruit of the next season.

It appears, that light and heat with the consequent flow of juices by continuing to act on the organic matter of the tree, would form in the first or lowest degree of circulation, the above-named longitudinal fibres of sapwood—in the next degree bark, in a higher degree leaves and buds of different kinds, by a still high temperature the wood buds would be elongated into branches, and by the greatest degree fruit buds into blossoms, germ fruit—every one of these operations seem more and more external or exposed, as if the tree with consciousness of her safety and the sun's approach, had successively unfolded her inmost recesses of beauty and usefulness; falling back in the same order with the retiring season—that which was last, failing first—till all has retreated into winter quarters.

It is a well known fact, that the finer kinds of pears are introduced from a milder climate than 39 degrees (from France,) and therefore, are very sensible to both cold and heat. They are trees that abound with juices, as may be seen by the numerous scions that they fling up around them. If the latter part of winter, or early, spring is warm, these juices are set afloat, especially if the ground is rich and cultivated. In this degree of light and heat the bark begins to form, a seperation to take place from the new made sapwood, and in a few days winter returns upon the tree, or in other words, February has been spring and March winter—an imperfect bark is thus separated from the mother white wood, and like the untimely, weaned child, it sickens, it droops, and as heat is farther applied, the damage increases till it dies, because this heat evaporates the juices faster than it can force them into the contracted vessels—which perhaps never can be made to expand again in the vegetable, whatever may be done in the animal economy.†

It is highly probable, that north of this (viz. Maryland,) many trees die of winter cold, an excessive retrocession of the juices may become fatal, the bark may give way and split. This is often the case with exotic shrubbery, and it is remarkable, that they always give way on the trunk, where the bark is less elastic and scurfy. It will therefore, be easy to distinguish this disease, which is more properly a blast, from Kibes—and moreover, it requires a very different treatment. Manuring articles made into a paste and spread on the body and larger limbs with a sedge broom, will be a great defence where matting is not to be had—such for instance as whitewash, thickened with ashes and soft cow dung. But in the disease I have

* It appears that the sapwood in the plantule makes the first bark, as may be seen on the young Melia, and then does the office occasionally to supply the deficiency by accidents whilst the bark ever after annually makes sapwood, and increases the size of the tree with a visible addition.

† It is sometimes the middle of summer before the whole damage is developed, and some imperfect fruit forming, has led those who merely take a peep at the tree, to conclude it to be done at this time.

been describing, it might be the very cause of death.

Let us now proceed to matter of fact; I know of only two sets of healthy pear trees, they have in five or seven years changed owners. In the time of the former owners, much attention was paid to them and disease was constant. The present owners neither manure nor dig about them. In one of these, I know that the grass has surrounded them unbroken for years, and they are not only perfect but bear fruit, when all others fail—they are Bergamot. In the other set alluded to more attention is paid, the grass is cleared away in early summer, but the shoots are permitted to grow for forty feet around them in such quantity, as to defy any removal but with a scythe, and these remain till next grass time—no manure is applied and the ground naturally poor. Even the unhealthy trees have shot out new and healthy branches, since they have remained undisturbed: these facts are too plain to be misunderstood, they point out the remedy as well as the manner of the remedy acting. The abundant juices are restrained in the first case, which is preferable, and in the latter they are partly restrained and partly diverted into the young scions.

I will mention two other facts, though not so plain, yet they confirm the above. I moved to a place where there were two very healthy pear trees, (Vergoliew,) one was choked as I thought with grass, the other was so surrounded with scions as scarcely to admit approach. I removed the scions, dug and manured the ground in both, and the consequence soon ensued; I lost them by Kibes. The other case that confirms those opinions and facts, was that of a gardener of my acquaintance, who was actually on the right track to save his trees, but for want of understanding the true cause of the disease he failed—he discovered that the trees which had honey-suckles around them, were less liable to disease; but he supposed it were protection, and therefore manured and dug, and thus dug the grave of his fine trees.

Let us therefore suffer our trees, after they have come near the fruit bearing period to vegetate *naturally*—they will be a little more tardy in growing up, but they will be hardy, healthy and bear well. If our grounds are already rich and loose about the trees, part of it may be removed in the first warm spell, as winter goes off; and we may plant some shrubbery that springs early about their roots, such as gooseberry bushes or current bushes, or honey-suckles, or running box; or lay on in place of the rich ground, some sods from poor ground—perhaps some boards or long manure laid on the roots in the severity of winter and moved off the first warm season, might back the juices—various experiments might be made to restrain or divest the too free and early circulation. The rearing of two trees nearly in contact (giving them the espalier form) might answer. It is clear then, that pear trees, and peach trees should not approach each other, for the former will require treatment exactly the reverse of the latter, and I believe in all the knife should never be used after a tree bears fruit, unless some accident may make it necessary, as in the animal.

SILVANUS.

P. S. I hope that if this paper corresponds with known facts in other places, that the persons acquainted will not be backward in giving them to the Editor of the Farmer—as also an account of any other fruit trees requiring natural treatment.

FOR THE AMERICAN FARMER.

Mr. Skinner.—Rotation of crops is as important as the cultivation and mixing of the soil; persuaded that Indian corn had been the crop which ruined the land in Virginia, I regretted it, and cultivated the greater part of my farm in wheat, rye, and oats, and in order to take a "bond from fate," that I should succeed, I selected such land for each of those crops, as was best adapted to grow them, and resolved to perpetuate those crops upon the same land, as long as I should be pleased with such a course of croping. The fourth crop of wheat was so much deteriorated as to be worth little or nothing—the sandy land had more cockle than wheat, and the wheat produced was light and chaffey. The rye and oats did better, I think they improved.—Rye does not degenerate into cockle. Oats depend much upon the humidity of the season, and the time you put them into the earth—the same land will vary the crop from 10 to 50 bushels. The failure of the wheat arrested my experiment; it was necessary that I should return to that crop which was then odious to me. Indian corn was therefore planted upon a part of this land, and I was astonished at the produce—no corn had been cultivated upon this field for three years before my experiment, and all the ploughing of that experiment had been well done. I used plaster of Paris freely in the making of this crop of corn, which was the first experiment of the kind known to me, except those which General Washington had made—the crop was full four times that which the same field produced, when last in corn. I should have told you, sir, that from the beginning of my *perpetuation* experiment, I had used the largest ploughs, and had opened the earth as deep as we knew how in those days, and that when my experiment failed, my neighbours said they "knew it," for General Washington had destroyed some of his land in the same way, and if I did not quit that mode of ploughing, I should soon be ruined: a "short horse was soon curried," they said. My crops of wheat following those of corn were excellent, and should have convinced me, that I was in the right path to profit and agricultural reputation. My feelings however, were at variance with the demonstrations, that I had made in favour of the corn crop.—I had read and heard much of the advantages of a fallow for wheat and clover; I therefore, divided my farm into six lots, three of which were alternately fallowed for wheat, and *rested* in clover; and three were alternately in corn, oats and clover—plaster was used freely upon every crop—the fallow fields were pastured the other three were not. My crops upon the fallow deteriorated every year; blue grass had taken possession of the greater part, and ousted both wheat and clover. My fallow was made by one ploughing with Peacock's best three horse plough, and as many harrowings as appeared to be useful or necessary.

The lots cultivated in corn, oats and clover improved much—yet to this day, I am unable to account for some stagnation in the progress of fertility, which attended them.—For the sake of experiment, I cut part of the field when in clover, and left a part which was well turned in with the plough and never saw any difference in the succeeding crops of grain or grass. Six acres was seeded in clover and plastered every year for six years, and not cut or grazed, the crops were very abundant; at the end of that time this ground was cultivated with the adjoining land, which had been in corn, oats and clover, and no difference seen in the crop, nor has any favourable difference been since seen. A host of poisonous weeds, vines and briars became rooted in this land, which I shall not extirpate during my life. Necessity has made me use corn as a sort of pioneer for beating down and rooting out the enemies of small grain and grass, and preparing the soil for *atmospherical improvement*—than which I know of no agent more powerful or less costly; hence it is, sir, that the soil is inexhaustible where it is judiciously cultivated; it is this kind provision of nature, that proclaims to the nations of the earth, the supervision and kindness of their heavenly Father; it is this that has perpetuated from generation to generation the "seed time and the harvest;" and it is this that will in due time with the healing of its wings, regenerate and fructify the broken and destroyed surface of our country.—Think not, sir, that I would have man to sit with folded arms and say, "we have Abraham for our father," or "we are the greatest and freest people in the world."—No, sir, I would have him act consistently with his belief, that he is a responsible being—that the *earth* is *man's* inheritance, and that of course the immediate possessor is nothing more than a tenant for life, and as such, should be punishable for all injuries done to the reversionary interest: by acting upon a principle like this, the Chinese have made their portion of "man's inheritance," carry a population thicker than ours is now capable of carrying sheep.

I beg pardon, sir, for my speculations, as they grow out of my zeal for correcting a bad procedure in agriculture. I hope you will excuse me, for it was not my intention to have departed from mere experience. I heartily tender you the salutations of the season.

A VIRGINIAN.

January 7th, 1821.

COMMUNICATED FOR THE AMERICAN FARMER,

by G. W. Jeffreys, Esq. *of North Carolina.*

Virginia, Port Royal, October 6, 1817.

Dear Sir,—Enclosed are drafts of the instruments* I use, which are in some degree rare. The plough for ridging is gotten in the best

* For these implements the reader is referred to this volume of the Farmer, page 195—where he will see three of them—the fourth is now added.

Edit. Am. Far.

form from New York or Connecticut. We have no mechanicks here, who turn their attention to agricultural implements, of course those we use are constructed chiefly on the farm, and are very imperfect. I have tried harrows of various kinds, and rejected them, except for the purpose of covering seed, which ought to be covered shallow, on a flat surface. Such are as good, made of wooden pegs as of iron. Harrows are inconsistent with my system of ridging.

I am afraid to describe the former and present state of my farm, lest I should be charged with an incredible tale. It is even venturesome to state the naked fact, that the shifts produce at least four times as much corn, as they did 18 years past, without describing the quantity of high and low land grass, now existing on what was then nearly a naked arena. The present year's shift of 250 acres, will probably average eight barrels to the acre. It is not the same with wheat, generally, owing to the casualties to which that grain is liable in our climate. A farm I purchased six years past, thrown into the system of four shifts, and my usual mode of management, though imperfectly managed by an overseer, will produce of corn this year, from one fourth part of it above double what it antecedently produced from one third. This improvement is more rapid, apparently, in reference to the time, than that of the farm on which I live, but the fact is, that my system where I live has only been settled for about ten years, within which space the improvement has chiefly happened.

It is impossible for me to say, to what particular item of the system pursued, improvement is chiefly to be ascribed; because it has arisen from a combination of many, including manuring, enclosing, deep ploughing in ridges, sowing grass seeds on all lands cultivated, and plastering; the relative value of which may be probably in the order as they are named. To these chief items, some of minor importance have been added.

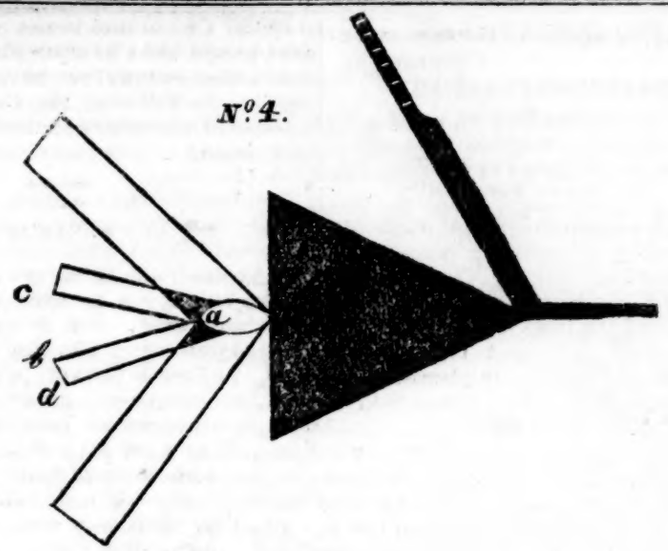
I do not think there is any danger in deep ploughing on the poorest soil, in ridges, as explained in Arator, though in a flat surface it would be pernicious.

The book you mention was written under an apprehension, that our government was in danger of taking an inclination unfavourable to agriculture, and favourable to a monied or paper aristocracy. And considering that its expenses are seven fold greater than in Washington's administration, that millions of western lands are annually disappearing in some unseen vortex, and that the Atlantic people are emigrating in thousands, I am sorry not yet to be able to discern, that the apprehension was groundless.

Though a richer mine than that of Potosi lies within ten inches of the surface of the ground, you greatly overate my endeavours to enable my countrymen to find it. All that I can do, is to point out the residence of the ore. It requires more industry to dig it up, and better talents to refine it, than are pretended to, by sir,

Yours respectfully,

JOHN TAYLOR.



No. 4.—This plough is a copy of No. 3, with the addition of the interior mould-boards, and the exclusion of the pin. It ought not to work deep. It immediately precedes the planting of the corn. The wide mould-boards bestow a weeding on the ridge; the narrow, form a central narrow furrow for depositing the corn by a string, to be covered by the foot with the mould turned up by the mould-boards.—The plough is drawn by two horses, by which means the furrow is run straight.

Arator is referred to for the use of these instruments.

A Patent Drill for Dropping Corn and Garden Seeds.

This Machine has been patented, and is made by Mr. Robert Sinclair, of this city, who sells it at 15 dollars. We have received the following description of it, accompanied with the cut, at the head of this notice. From these, a correct opinion may be formed of its value. We believe that the Machine is a very good one; and, upon smooth ground, capable of saving a great deal of labour; and, what may often be of higher moment, it gives the power to complete extensive operations in advantageous seasons.—*Edit.*

In the bottom of the hopper there is a solid cylinder, whose surface is indented. The grain, or seeds are placed in the hopper, and gently pressing upon the cylinder, they fill the indentations or cavities on its surface. And as it revolves, the seed fall out and drop into the tin conductor, which conveys them into the hollow backed coulter, that descends below the bottom line of the wheel, and cuts open the mellow soil to receive the seeds as they come from the conductor.

The seed or grain, is partly covered by the closing of the fine earth that had just been opened to receive it by the passage of the coulter, and the covering is finished by the operation of two pieces of iron, shaped like harrow teeth, and fixed behind the hopper to the sides of the beam.

The seed after it is covered, is brought into closer contact with the soil that envelopes it, by the gentle pressure of a small roller, fixed to the heel of the machine, to the motion of which it gives some steadiness, whilst it also governs the depth of the coulter. The cavities on the surface of the cylinder may be so placed as to drop the seed at any distance. The cylinder is revolved by a chain band passing around two pulleys of equal size, one of them placed on the axis of the wheel, the other on that of the cylinder. Around the pulleys, a chain passes, which receives its motion from the pulley on the wheel, and communicates it to the pulley on the cylinder.

The cavities may be placed on the surface of the cylinder, so as to drop the seeds at any distance. This is regulated by the circumference of the wheel, and the number of the cavities on the cylinder: Suppose the first to be four feet, and the last two in number placed at opposite points, then as to the revolution of the wheel marks a line of four feet, the seed would be dropt two feet distant from each other. One cylinder can be taken off and others put on, with cavities suited to various seeds, such as corn, beans, peas, turnips, radishes, beets, carrots and parsnips. Flat seeds should be mixed with ashes or compost to separate them. Drawn by one horse, and guided by a man, this machine may be said to do four things at once; it opens the ground, drops the seed, manures and covers it.

S.

FOR THE AMERICAN FARMER.

CHARLESTON.

ON DRAINING MARSHES.

SIR—I was much gratified with reading the several communications that have appeared in your paper, upon the subject of Draining Salt Marshes.

As I have been cultivating land of that description for many years with success, the perusal was interesting to me. The piece of marsh I enclosed, composed about two hundred acres, and adjoined the lands I planted in rice—thinking it would be a great improvement, and a handsome addition to my plantation, induced me to undertake the arduous task. I had great difficulties to contend with, but I overcome them by perseverance.—Deep draining I found indispensable to bring the land into any kind of tilth for cultivation, it being necessary to get rid of all impurities contained therein, as also to prevent the salt water again intruding, I employed all my ability to find out a proper trunk for the purpose. Having some years ago obtained the desirable object, and wishing to add my mite towards improving and promoting agriculture, I send you a model of it, with a request, that you would present it to the Agricultural Society of Maryland, of which I see you are a member—some of them perhaps owning such a description of Land, will I think reap advantage by adopting it. I have filled up the box with cuttings of the Cherokee rose, and must further intrude upon your politeness, by requesting you to distribute them among such farmers of your society, as you think they would be acceptable to. The trunk attends itself, and will, if properly made, completely exclude or retain water at pleasure. In freshening my marsh, I found it beneficial, at times to put in water, and let it remain until, by its incorporating with the land, it exhibited a kind of mahogany appearance, and had a flattish alumy taste. The slide was then hoisted, and the water turned into the river; the land was then kept dry, until by the operation of the sun, the surface became encrusted in various parts with salt, drawn out by its heat. Water was again put on, and the same process adopted, as described above. It must be, however observed, that the rushes which the growth of the land, had been previously got rid of by setting fire to them on a windy day.

As there are at times, great gluts of water passing through the trunk, the outside apron will often float, and let in the returning flood tide, thereby doing great injury to the land, to remedy which, I pinned on a box upon the lower part of the apron, and filled it with bricks, making it heavy enough to retain its station upon the return of the tide. All trunks will collect trash at their mouths, and some will creep in between, creating a leak and letting in salt water; to prevent which a common stable rack was placed at the entrance of the ditch, leading to the trunk, thereby protecting it, and collecting from time to time, a great deal, which was removed by a person always employed on tide land plantations, called the trunk minder. This kind of trunk for venting and returning water at pleasure. I have been making use of for many years, and found to answer so well, as to induce me to make use of a few more of the size of eight and nine feet wide, two feet six or eight inches deep in the clear, and thirty feet in length. There being always a deep excavation at the tail of the trunk by the fall of the water, great danger is to be apprehended from its being made too short.

On rivers, trunks are always in danger by inroads, constantly making by fishes, snakes, aligators and fidlers,* which are incessantly at work, boring holes in the Dam, and often the cause of a trunk blowing up, for which reason they ought to be made twenty-five or thirty feet in length, and the greatest care made use of in putting them down, in a firm, solid part of the land, mixing up with the dirt, moss or straw, which greatly arrests the progress of these destructive animals. You will perceive, on examination, that there is not a piece of iron made use of in the construction of the model, except, after having pinned down all the plank with *wooden square pins*, a spike nail is introduced at the corners of the end planks for the purpose of securing the upper and lower ones, which are more liable to injury from the motion of the apron, and slide up and down, which the nails effectually protect. Should you think the above communication worth insertion in your excellent paper, and capable of throwing any light on the subject of draining marshes, and adopting trunks most proper to be made use of, you are at liberty to do so, and it will be a gratification to me, to suppose that I have been instrumental in adding one mite towards its progress and improvement.

I remain

Your obedient servant,

CHARLES E. ROWAND.

* Since writing the above, I have conversed with several gentlemen from the North, and I find these little animals are abundant, and are as well known by the name of fidlers as they are here.

☞Any person interested in the subject, may see the model of the trunk, by calling at the office of the American Farmer.

TO THE EDITOR OF THE AMERICAN FARMER.

DEAR SIR—In your last paper, you have laid it down as a maxim that, he who politely answers to inquiries has a special right to be answered in turn.—Now sir, I cannot say that I have answered any questions put to me specially, but I flatter myself, that I have furnished through your paper, some highly important information on various subjects connected with agriculture, horticulture, &c. &c,* and therefore, now put in my claim to the privilege of being answered, holding it trite, that he who voluntarily comes forward, and communicates his information unasked, is entitled to as much civility as he who waits until he is called on for it.

Although in the higher branches of the art, most subjects are familiar to me, there are many connected therewith, which are considered lower in the scale that are no less important to our interests and our comforts, the knowledge of which is chiefly confined to the old and ignorant to the common labourer and to the slave, and held as *mysterious* to the more enlightened of our profession—although requiring the most intimate acquaintance with anatomy, science and intelligence.

In the paper which I think precedes the one above mentioned, there is a valuable essay on the preference which should be given to spayed heifers, over oxen, both for work and for beef.† Now sir, as an article of food, the same preference is given to the spayed sow, yet how seldom do we see it practiced for the want of the necessary information on the subject among that class of men, who would feel most interested in having the operation performed. Here and there may be found among us, an ignorant and otherwise useless old man, who understands it, but they are rare; whereas in every part of Europe the "sow gelders" horn is as well known as the cry of the chimney sweep is in our cities. We all know or have heard, that a spayed sow makes much better pork than one not spayed; but there is another and very important consideration, that should induce us to practice the operation, which is no less than the improvement of the species.—Worthless sows are now permitted to live because they are not worth killing, and living they continue to propagate their unprofitable long legged, long snouted, bow backed, lank bellied kind, to our annoyance and mortification; whereas if the practice of spaying was more general, the most worthless would be fattened and killed, and only those of the best qualities would be kept for breeders.

We send to Europe and import at great expense, cows, bulls, horses, hogs and sheep, to improve our stock; why do we not use the same means as they do in other countries, to prevent their degeneracy? Can we always expect good calves from bad cows,‡ good pigs from bad sows, or good lambs from bad ewes? Can we reasonably expect any improvement in our stock of any kind if our attention is confined solely to the good qualities of the male, while we are totally indifferent to those of the female? While we permit ourselves to be over-run with a worthless race of breeding females, it is in vain to hope for those improvements in the breed of animals, so much desired—to say that their degeneracy is caused by climate is ridiculous, and proceeds from that desire inherent in man, to charge to any other cause but the right one, the consequence of his own neglects. Now I

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* See my essays on Gardening, raising corn, Hessian fly, &c. &c.

† I have heard it said, that in some parts of a state, *not* 1000 *miles from Maryland*, it is the practice to plough with milch cows. The ploughmen ties the plough to the cow's tail, takes his Indian cake in his pocket, his gourd in his hand, and a bundle of corn blades in his arms, and thus equipped for the day, proceeds to his work; when he stops for breakfast or dinner, while the cow is eating the corn blades, he milks his gourd full, and with that, and his cake, makes his meal. Now this is good economy of time, harness and food; and if the practice becomes general, objections to spaying may reasonably be made; but *until then*, I think we may safely calculate on benefiting by the trial.

‡ I have often heard it said, "a good cow may have a bad calf," but have never heard it said, a *bad* cow may have a *good* calf.

insist upon it, that our stock of all kinds may be brought to the highest state of improvement by keeping only the best of both sexes to breed from, killing of all the rest, and to ennable us to prepare them for killing, and more general knowledge of the manner of performing the operation of spaying is loudly called for. Any one of your numerous correspondents, therefore, who may be a master of the subject, will render an essential benefit to the community, by making it known through your useful paper, accompanied by suitable engravings, &c. Similar remarks might be made with respect to poultry of all kinds; we all know how much they are improved for the table, by a destruction of their generative powers; and as it is for the table alone they are destined, a knowledge of every means of improving their size and delicacy, is very desirable. The subject is one of the highest interest to the country, as it concerns the improvement in the breed of all kinds of domestic animals, as may go to prove, that this hemisphere is not adverse to their highest state of excellence. Some writers contend, that every thing degenerates here, and our practice of sending to Europe for animals to renew our stock would seem to sanction this opinion—let us then convince them that the fault is not in our soil or climate, but in the neglect of the means, which are used elsewhere. Let us magnanimously take to ourselves the blame which properly belongs to us, and acquit our country of the reproach.

I regret, sir, my inability to treat this subject as it should be treated,—I have far transcended the limits which I had prescribed for myself, and must end by begging that no squeamishness or false delicacy, will prevent the information asked and being freely communicated.

Your friend and well wisher,
JEREMIAH SIMPLE.

NOTE—I ask it as a favour that my inquiries may be answered as they are asked, in *propria persona*—let us have no "*Correspondents*," "Constant Readers," "Subscribers," &c. &c.

Rockville, Frederick County, Virginia.
December 9th, 1820.

Believing the American Farmer the proper Depository of any remarkable fact, relating either to Agriculture, or the economy of Domestic Animals; although not one of its patrons, I enclose you, (without any other apology than a high sense of its merits) a large needle, taken some days ago, from the stomach of a very fat Pork Hog.

You will perceive from its appearance, that it had remained in it, long enough, to be considerably operated upon, by the Gastric Juice, before it worked through and became the Nucleus, of a fleshy excrescence appended to it, as large as an egg. There is an inherent principle in all animals, termed the Vis Medicatrix: how far the above fact may be regarded as a demonstration of its existence, or how far it may support the theory of its superior energy in Quadrupeds under circumstances that would induce death to man, is a point submitted to the learned in Physiology to determine. Wishing you all the success in your pursuit, to which, your ardent zeal, in the cause of Agriculture so justly entitles you, I am,

Sir, very respectfully,
Your obedient servant,
JOHN HAY.

JOHN S. SKINNER, Esquire,
Editor of the American Farmer, Baltimore.

There is nothing singular or new in the working of pins and other foreign materials, through the bodies of living animals, except that they avoid in their course, inflicting vital injuries, by wounding vital organs, or even those of much importance in the operations of the animal functions,—this singularity is certainly not from physiological prescience, or sentimental concern, of the inorganic for organic nature, and therefore must be referred to some inferior faculty or capacity in living structure, to repel such encroachments. Call it what you may the fact stands admitted and giving it a name only gives us a toy and adds nothing to our stock of knowledge, beyond the naked facts;—by resorting to the term Vis-Medicatrix Naturæ, the solution of the process is merely evaded—we are not a tittle the wiser It would seem, however that animal and even vegetable structure is so constituted, as by its mechanism and its ingredients to repel, the impressions of inorganic matter or agents, i e. The vital parts are so much better lined with tenacious membrane and lubricated, as to throw on the less vital parts which are more permeable, these movements of foreign bodies in them, and which are necessarily carried somewhere, by the muscular motions of the body. Nature seems to have adapted those motions themselves—so as in their ordinary operations, to give a tendency to impinging bodies out of the line of vital structure. The defensive faculty of animal life is thus far comprehended, but how it repels poisonous influences, or overcomes accidental derangements, or supplies casual defects—by a series of operations involving often the energies of the whole system, or its energies sinking under them we see but partially though the fact here also is admitted. In this enlarged view, the preservative or curative faculty of animal life, has been called the Vis Medicatrix Naturæ—which can certainly imply no more than that when the process cannot be explained—it must be ascribed to a certain principle a somewhat we know nothing of, but which serves to recognize acknowledged facts that this faculty exists in variety, ad infinitum, in different animals and different organs of the same animal. every one knows, perhaps, it depends on the mere grade of sensibility or irritability under foreign impression, and this again may depend on the manner in which those known principles are shielded by organic structure, or it may depend entirely on that structure.

It is obvious then, that facts which go to shew those relations are interesting, and to be found chiefly in morbid Anatomy. But your correspondent in sending you the naked needle, has left its history very imperfect; the entire stomach preserved, would have been a great curiosity, as displaying the physiological properties of the stomach, and perhaps a very peculiar condition of it, and even of practical utility, as affording the basis of prognostic and grounds of treatment in similar occurrences in the human species; since those properties differ only in grade, sufficiently familiar to Physicians for these purposos.—An account of the precise state of the Tumour, its structure, classification and adjacent influence would be desirable in the absence of the specimen, as it is doubtful if one parallel case would be found amidst the multitude of miraculous occurrences of perforations of the stomach. As the diversity of structure in the same organ, gives the force to the illustrations of comparative Anatomy, so does its morbid conditions more strongly illustrate similar human diseases, by the physiological shading in the contrast. All such facts are therefore valued and to make them fully so, the delineations should be minute and exact—for want of which the exhibition of the needle with only a little raw speculation excites rather than gratifies even curiosity.

A.

The following communication has been sometime on file, but its publication has not been delayed from any want of thankfulness to the author, whom we did not know. It was thought most respectful to the Agricultural Society of St. Mary's, for the activity and intelligence of which we have as much respect, as for any in Maryland, not to publish an anonymous sketch of their proceedings, as long as there was any hope of receiving a regular report. That would seem now to be hopeless, and we therefore give the following, with the more pleasure, because it is the first exhibition of a ploughing match, that we recollect to have seen any account of in this state—may this good example have its proper effect.]

Leonard Town, Md. 18th, Dec. 1820.

Mr. SKINNER,—The "Saint Mary's County Agricultural Society," at one of their regular annual meetings held at this place, on the first Wednesday after the first Monday in October last—had their first ploughing match, an account of which was ordered to be published by their "standing committee," and as it seems to have been neglected so far, I propose to give you an account of it.

It was the first exhibition of the kind in this county, and did not excite that general interest which was calculated to produce much competition. To those present it was highly gratifying, and augured an increased public interest, and more candidates for the prizes at their next ploughing match, which takes place on the same day in the coming year. The work was well and neatly executed, in the opinion of the spectators.

Mr. Thomas Gardiner, of Brambly, from the committee appointed to superintend the work and award the premiums, made the following report:—

Two horse ploughing performance, 60 by 20 yards.

Mr. George Slye of Westham, in 51 minutes.

Mr. John Leigh of Woodbury	in 51¾ do.	1st premium of $10.
Mr. John R. Plater, Jr. of Hanover	in 59 do.	
Mr. Richard B. Mason, of Richland,	in 66 do.	2d premium of $5.

Two ox ploughing performance, 60 by 10 yards.

Mr. Richard B. Mason, of Richland,	in 37½ do.	1st premium of $10.
Mr. H. G. S. Key, of Tudor Hall,	in 37½ do.	2d premium of $5.

Col. Ath's, Fenwick, of Cherry Fields, withdrew his ox team, having unfortunately got one of his steers injured in the foot by the point of the plough, early in the contest.

After the Society got through the business of the meeting, the company went to dinner, and drank several volunteer toasts, of which I recollect the following:

"Speed the plough and spinning wheel," by their President, Mr. Key.

"Domestic Manufactories, at the expense of the adventurer, but not of the nation," by Col. Fenwick.

"The pursuits of labour, so far as they depend on their own merit," by Mr. Mason.

"Agriculture, it wants but champions, to assist and defend its interests," by Mr. Plater.

I am yours,
A BY-STANDER.

FROM THE POST OF LAST EVENING.

Another case of Lock-jaw successfully treated with Scull cap.—The anti-spasmodic virtues of this invaluable plant, have once more decidedly manifested themselves, in the following case of confirmed tetanus or lock jaw.

On the 19th of December last, Dr. Stillwell, was called at six o'clock in the morning, to visit the son of Mr. John Ball, aged nine years. He found him labouring under an affection of tetanus. The muscles of the neck and back were contracted so as to draw his head forcibly backwards, giving at the same time, a corresponding curvature to the spine; the jaws were firmly set by contraction of the masseter muscles; the teeth were clinched together, with great pain under the sternum or breast bone, and other usual symptoms of this disease. He had almost continued spasms, which lasted 20 to 30 seconds at a time, with intervals of about five minutes. It appeared that about ten days before, the lad had been pricked by the point of a brad or small tack, which had been carelessly driven through the heel of his shoe, and had made a slight wound, not however so as to confine him to the house, but which festered, and was poulticed by his mother, when it healed entirely up, so that he went about his recreation. In the morning of the tenth, he perceived an uneasiness in the wound, but so little that he did not mention it, and went to school as usual, in the evening he complained of pain in his heel and said it ran up his thigh. His mother prepared a hot bath of strong lie, in which he was directed to hold his whole foot for a considerable time, and after applying another poultice, she put him to bed.—He passed an uneasy night, till just before day, when he suddenly jumped on the floor, screaming murder. Dr. Stillwell was then sent for, and found him in the situation described. He directed that opium should be given every half hour in doses of half a grain each time, accompanied with a free use of brandy or wine. At a little past two o'clock, Dr. Stillwell called again to see him and found that the disease had not at all abated, but on the contrary, had gradually continued to increase, although he had taken about eight grains of the opium, without producing any perceptible effect; he had not touched the brandy, and of the wine he had swallowed but little; only a few spoonsful, as it did not agree with his stomach. The Doctor then ordered that a quantity of the scullcap should immediately be procured, and a strong decoction made by pouring a pint and a half of boiling water upon half an ounce of the dried herb, of which a wine glass full should be given every fifteen or twenty minutes; and in the mean time that Dr. R. S. Kissam should be sent for in case it should be deemed advisable to divide the nerve or amputate the limb, as the only means of saving his life.—At four o'clock Dr. Stillwell saw the boy again, and thought his symptoms began to abate, but Dr. Kissam, who now saw him in consultation for the first time, was of opinion that it was a clearly marked case of *tetanus*, and so far advanced that it must terminate in death. They agreed however, that the same treatment should be continued, until they should visit him in the the morning following: ordering his attendants to give the scull cap unremittingly every fifteen or twenty minutes, the wine or brandy as much as he could take, and in case they should perceive any thing extraordinary that they should also give the opium. The next morning, the physicians on renewing their visit, found their patient, much to their surprise and pleasure, materially better, and giving hopes of a recovery. The scullcap had been regularly administered since they last saw him; twice the opium had been given, but of the wine he had not tasted, and of the brandy he had not swallowed more than half a gill mixed with water. The next morning, (the 21st) when the physicians came again, they found him decidedly convalescent; he had taken the opium only once during the twenty-four hours, had not tasted the wine nor taken the brandy of any consequence; but the decoction he had steadily and perseveringly drank as before directed. Dr. Kissam discontinued his visits, advising him to drink the tea a week or ten days longer. The case is concluded, by stating, that the boy is now playing about, quite restored to health.

Such is the report of the facts and circumstances of this case, carefully collected from the attending and consulting physicians, to whom it has been submitted, and who have both consented to its publication, and also from the mother of the lad, who nursed him and gave him his medicine. It must I cannot but believe, be perfectly satisfactory, to every candid, liberal, and benevolent man, in establishing beyond question, the curative qualities of the *Scutellaria lateriflora* in spasmodic affections. Certain gentlemen of the faculty, will however, continue boldly still, to deny the virtues of this plant, and to discountenance the use of it, because they say it has no sensible effects on the palate, and therefore is inert. But which of them I ask, can tell me, by the same criterion, the difference between a mushroom growing in the fields, and a toad-stool; the former a healthy, nutritive species of food, the latter a fatal poison, that has proved fatal to hundreds. Every man's recollection will supply him with numerous similar instances. But your ingenious, book-learned physicians, will doubtless assert that it is not the *scutellaria*, but the opium, and the wine, or brandy, to which the cure was owing. And if they do, it will be to attribute the greater effect to the lesser cause; which is equally repugnant to both sound logic and sound philosophy. One fact will weigh more with men of sound common sense, than all the theories of all the arguments that the most learned acute subtilty can devise. We read that one of the ancient philosophers (as they were called) maintained against an opponent, that there was no such thing as motion, on which the other got up and walked across the floor. Truly the creed of these ancient philosophers is not extinct.

FOR THE AMERICAN FARMER.

CHEROKEE ROSE.

A NATIVE EVERGREEN.

Stateburg, South Carolina,
December 8th, 1820.

DEAR SIR—Enclosed you will find a few of the seed of the Rosa Cherokeensis, a native evergreen plant, which has been discovered in this state, to make more beautiful and impenetrable hedges than any thing yet tried. You have already received a short description of this plant from me, which has been published in the American Farmer.

The tree from which these seed were gathered, was planted from a cutting about seven years ago. Its trunk at the surface of the earth is now about as large as a man's thigh, and within eighteen inches of the ground; is separated into more than forty branches, which have been trained up together, to about the height of a man, and then allowed to pass off laterally, so as to form an arbour, under which a number of persons might stand. It covers a circular space forty feet in diameter, so thickly that a heavy shower of rain would scarcely penetrate sufficiently to wet persons beneath. A single branch which I cut, being the one most easily come at, and by no means the largest, measured eighteen feet, the growth of this year.

I am with great respect,
Your obed't serv't.
WM. W. ANDERSON.

At a sale of farming stock, the auctioneer gave the following extempore description of a beautiful cow.

Long in her sides, bright in her eyes,
Short in her legs, thin in her thighs,
Big in her rib, wide in her pins,
Full in her bosom, small in her shins,
Long in her face, fine in her tail,
And never deficient in filling the pail.

THE FARMER.

BALTIMORE, FRIDAY, JANUARY 26, 1821.

PRICES OF PRODUCE.

Baltimore, January 26th, 1821.

The ice still obstructs the navigation of this port, and prices of produce are generally the same as last stated. Whiskey, however, has fallen to 24 to 25 cts. per gallon. Flour sells at $3 75 per barrel. Hay, at $16, and Straw at $8 per ton.

Wood's (Freeborn) Ploughs.

THOMAS FREEBORN, having relinquished the manufacturing of *Wood's Patent Ploughs* to the subscribers, they offer for sale, a general assortment of the old and new improved *premium* pattern at very reduced prices. Orders from any part of the United States, executed on the most accommodating terms.

HARISON & TORREY,
Agricultural Repository, 211 *Front Street*, *New York*.

Where Shakers and other garden seeds, may be had (warranted) and put up in boxes for exportation.

January 26th, 1821.

BALTIMORE,

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BY JOHN S. SKINNER, EDITOR.